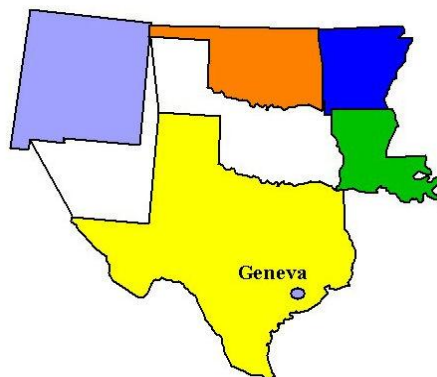


# GENEVA INDUSTRIES SUPERFUND SITE

Houston, Harris County, Texas

EPA Region 6  
EPA ID: TXD980748453  
Site ID: 0602809  
State Congressional District: 29

Contact: Gary Miller 214-665-8318  
Updated: No scheduled updates



## Background

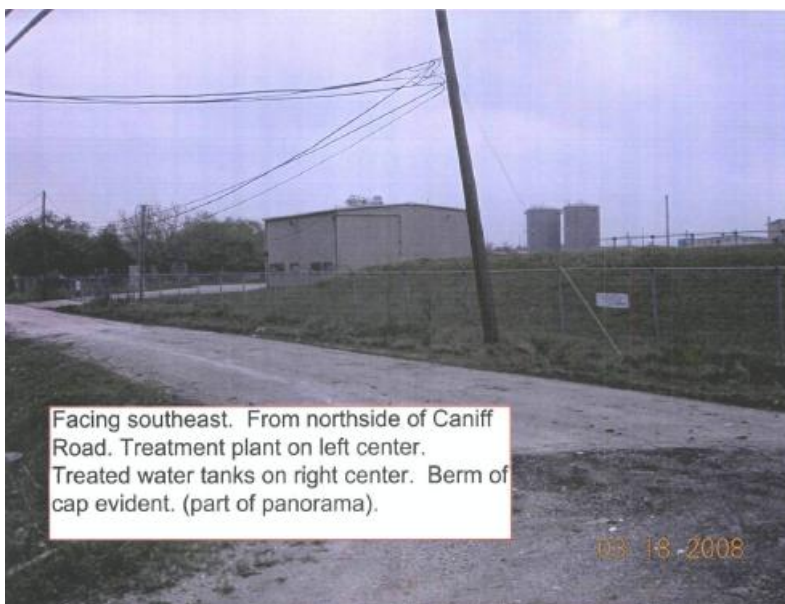
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The Geneva Industries site is approximately 13.5 acres and is located at 9334 Canniff Road in Houston, Texas. The site is less than 1 mile east of Interstate Highway 45 and approximately 2 miles east of Hobby Airport. The primary land uses near the site are industrial and residential. Some residences are located less than 50-feet from the site boundary. The site and surrounding area are flat and have a maximum surface elevation of approximately 35 feet above mean sea level. The site is drained by the Harris County Flood Control District Channel, which runs along the eastern boundary of the site. The channel flows in a northerly direction into Berry Bayou.

Prior to 1967, the Geneva Industries site was used for petroleum exploration and production. Between 1967 and 1978, Geneva Industries operated a petrochemical production facility at the site. The facility produced a variety of organic compounds, including biphenyl, polychlorinated biphenyls (PCBs), phenyl phenol, naphtha, and No. 2 and 6 fuel oils. Geneva Industries began production of PCBs in June 1972 before declaring bankruptcy in November 1973. Pilot Industries operated the facility from February 1974 to December 1976.

Intercoastal Refining owned the facility from December 1976 to December 1980. The facility ceased operation in September 1978. As of 1981, the site and adjoining property to the south contained processing tanks and piping, a large wastewater lagoon, two smaller lagoons, a closed lagoon holding solid PCB-containing wastes, a tank area, several drum storage areas, a landfill, and a possible land farm. As a result of past operating practices, extensive soil and shallow groundwater contamination existed at the site.

A removal was performed by EPA from October 1983 to February 1984 to close out all three lagoons, remove all drummed waste on the surface, remove all off-property soils containing greater than 50 ppm PCBs, install a cap over all on-property soils containing greater than 50 ppm PCBs, and improve site

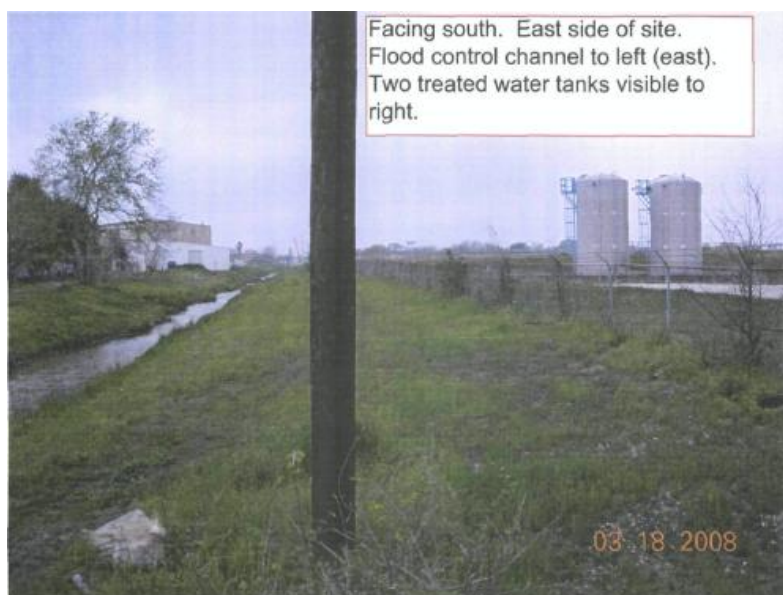


drainage. Approximately 3,400 cubic yards of contaminated soil and sludge, 550 drums of waste, and 30 tons of asbestos were removed and transported to an approved facility. Other removal actions to plug abandoned wells and remove storage tank materials were performed in 1984. The EPA issued a Record of Decision (ROD) for the Geneva Industries site on September 18, 1986. The remedial objectives contained in the ROD included prevention of future contamination of the adjacent flood control channel, minimization of direct contact with contaminated soil on-site, prevention of degradation of off-site soil and groundwater, and reduction of contamination in the 100-foot sand unit. In July 1993, the EPA issued an Explanation of Significant Differences that raised the remedial goal for trichloroethylene from 0.001 milligrams per liter (mg/L) to 0.005 mg/L, bringing it in line with the promulgated Maximum Contaminant Level. Another ESD was issued by the EPA May 2007, which added institutional controls to the selected remedy.

## Current Status

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The last Five-Year Review was completed on September 23, 2008. The Five-Year Review determined that the remedy for the Geneva Site is protective of human health and the environment and will remain so



Facing south. East side of site.  
Flood control channel to left (east).  
Two treated water tanks visible to  
right.

provided certain actions are taken, including increased monitoring frequency (quarterly) in MW-26 and creation of Institutional Controls to restrict the use of Site ground water and to maintain integrity of the protective cap.

The Texas Commission on Environmental Quality (TCEQ) is currently installing new recovery wells at the site. The ground water recovery and treatment system will be re-started once the new wells are in place and the treatment plant is ready.

An Explanation of Significant Differences (ESD) was signed on May 2007 to add institutional controls

to the remedy for the site. TCEQ, who is the lead agency for this site, is preparing institutional controls as restrictive covenants and/or deed notices in accordance with the Texas Risk Reduction Program (TRRP).

The next five-year review will be completed by September 23, 2013.

## Benefits

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The excavation and off-site disposal of 62,000 tons (39,000 cubic yards) of PCB contaminated soils and capping of the remaining contaminated areas eliminated human exposures and protects the health of persons living near the Site. The construction of the slurry wall (average depth 31-feet) down to the 30-Foot Sand prevented future contamination of the Flood Control Channel. Ground water containment and recovery from the 30-Foot and 100-Foot Sands with a pump-and-treat system protects the 100-Foot Aquifer as a water supply zone.

## National Priorities Listing (NPL) History

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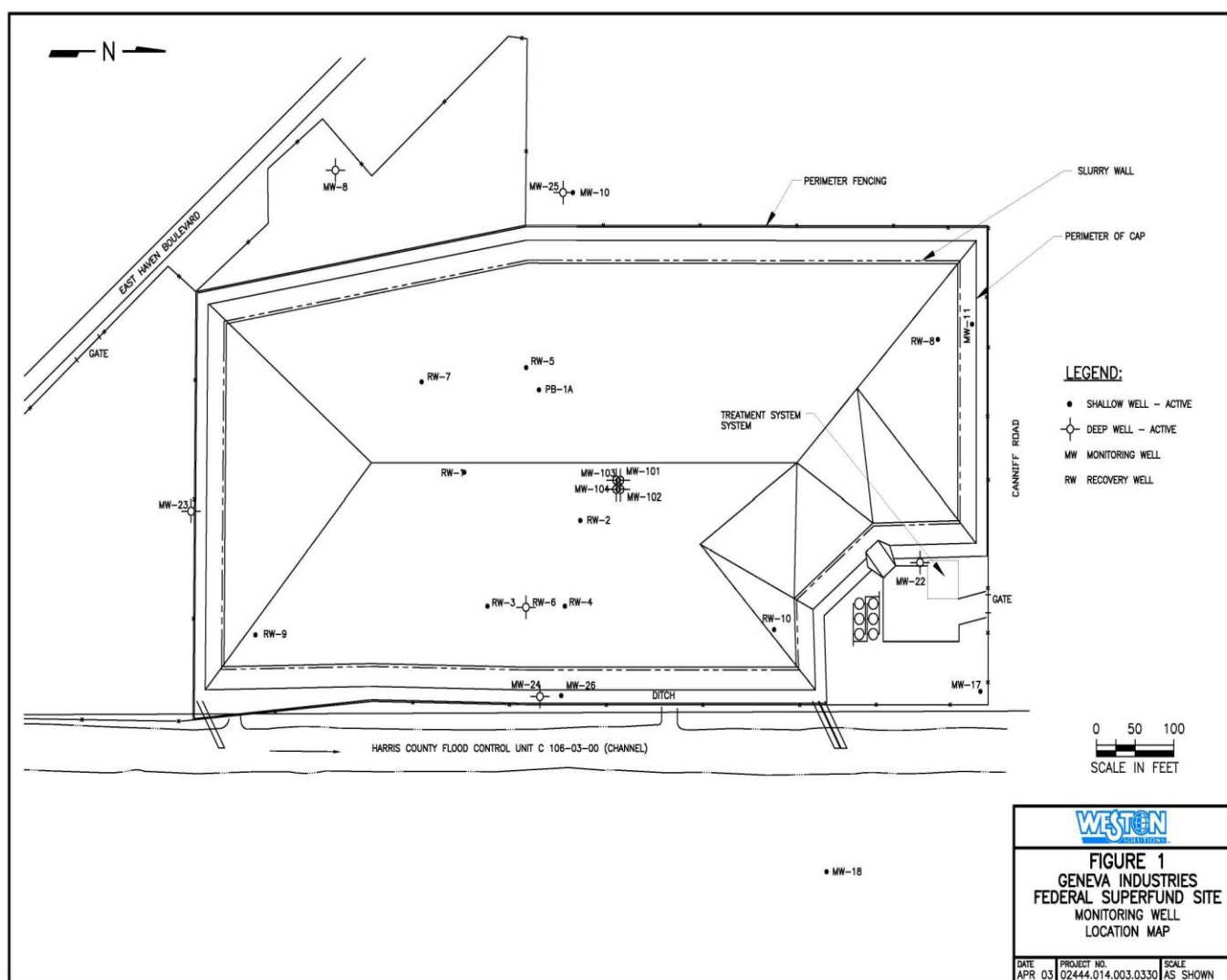
Proposal Date: September 8, 1983  
Final Listing Date: September 21, 1984

Population: 35,000 people live within one-mile of the Site. The closest residences are located less than 50-feet from the east and southwest Site boundaries.

Setting: The Site topography is flat with a surface elevation of 35-feet above sea level. The Site is drained by the Harris County Flood Control District Channel, which runs along the eastern boundary of the Site. Land uses near the Site are industrial and residential.

Hydrology: The top of the first water-bearing zone, known as the 30-Foot Sand, is about 15-feet below surface. The top of the first water supply zone, known as the 100-Foot Sand, is about 50-feet below the surface.

## Site Map



## Wastes and Volumes

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Geneva Industries is an abandoned refinery that produced a variety of organic compounds including polychlorinated biphenyls (PCB). The principal pollutants at the Site prior to remediation include PCBs in soils (up to 12,200 ppm) and shallow ground water (710 ppb).

Polynuclear aromatic hydrocarbon (PAH) compounds were also found in soil (165 ppm) and shallow ground water (to 1,500 ppb). Trichloroethylene (TCE) has been found in shallow ground water (420 ppb) and in deep ground water (28 ppb).

## Health Considerations

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High PCB concentrations in soil prior to remediation posed a significant health threat via direct contact, wind blown dust, or surface runoff. The contaminants also posed environmental risks to the adjacent flood control channel via surface runoff or contaminated ground water migration into the channel.

The site's Environmental Indicator status is human exposure under control and ground water migration under control.

## Record of Decision

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The Record of Decision was signed on September 18, 1986. The selected remedy included the following:

- Removal and disposal of surface structures;
- Excavation of soils contaminated with PCB above 100 ppm and off-site disposal;
- Construction of a multi-layer surface cap over the Site with a slurry wall tied into the clay below the 30-Foot Sand around the perimeter of the Site; and
- Recovery of trichloroethylene contaminated ground water from the 30-Foot and 100-Foot Sands. The recovered ground water was to be treated on-site by carbon adsorption, and then discharged to the adjacent flood control channel.

Construction completion was achieved on September 14, 1993.

The Site was divided into two operable units, OU-1 for soil and OU-2 for ground water. The remedial action for OU-1, consisting of soil excavation and disposal, and construction of the slurry wall and cap, was completed on September 28, 1990.

Construction of the ground water recovery and treatment system was completed in April 1993. Following testing, ground water recovery and treatment began in July 1993. However, major system modifications were necessary for the system to operate successfully. These modifications were completed in September 1994.

## Community Involvement

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Community Involvement Plan:	Revised Mar 1987
Open Houses:	July 1983; Oct 1983; Sept 1990
Proposed Plan:	April 1986
Public Meeting:	May 22, 1986
Technical Assistance Grant:	Availability Notice – Feb 1989; Dec 1989; Sept 1990
	No Final Applications received

Information repository: M. D. Anderson Library  
University of Houston Main Campus  
4800 Calhoun Rd.  
Houston, Texas 77004  
(713) 743-9772

Contact: Derral Parkin

## Site Contacts

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EPA Remediation Project Manager:	Gary Miller	(214) 665-8318
State Project Manager:	Phil Winsor	(512) 239-1054
EPA Community Involvement:	June Hoey	(214) 665-8522
State Community Relations	Crystal Taylor	(512) 239-3844
EPA Site Attorney:	Marvin Benton	(214) 665-3190
EPA Public Liaison	Donn R. Walters	(214) 665-6483
EPA Toll-Free Telephone Number:		(800) 533-3508